



Glenn Research Center



Experimental Apparatus for Laser-Induced Incandescence

- ◆ A pulsed laser heats soot to near its vaporization temperature
- ◆ The soot thermal emission increases in intensity and shifts in wavelength to the blue
- ◆ Point measurements are detected through a monochromator by a photomultiplier tube
- ◆ One and two-dimensional imaging measurements use a filtered camera
- ◆ LII signal is linearly proportional to the soot volume fraction
- ◆ Absolute measurements require calibration against a system of known soot volume fraction

